28. The process according to claim 27, wherein filaments and membrane patches are detected to determine the quantity and geometry of the cell traces.

29. The process according to claim 27, wherein, to detect the composition of the cell traces, they are subjected to staining or marking for the performance of microanalytic processes.

30. The process according to claim 29, wherein the microanalytic processes comprise fluorescence measurements, measurements on the basis of isotope markings, or elemental analysis.

31. The process according to claim 27, wherein, to detect the composition of the cell traces, they are subjected to enzymatic decomposition.

32. The process according to claim 27, wherein the cell traces are tested with a high-resolution microscopy process.

33. The process according to claim 27, wherein cytoplasmic residues or genetic materials are detected in the cell traces.

34. The process according to claim 27, wherein the stability of the cell traces during mechanical, electrical, acoustic, optical, and/or chemical treatments is detected.

35. The process according to claim 27, wherein, to determine the passive electrical parameters of the cell traces, their impedance, breakthrough resistance, non-linear behaviour, and/or heating during current flow are detected.

36. The process according to claim 27, wherein, to determine mechanical properties of the cell traces, their elasticity or plasticity is detected.

37. The process according to claim 1, wherein a duplication of components of the cell traces is performed to produce reference material.

38. The process according to claim 1, wherein the cell traces are produced in predetermined surface track regions, which are at least partially microstructured and/or modified for amplified adhesion of the cells.

39. The process according to claim 1, wherein the cells are subjected, after the production of the cell traces, to a medical or measurement technology application, cryopreservation, or further cultivation.

40. The process according to claim 1, wherein multiple cell traces are produced and tested on multiple parallel tracks.

41. The process according to claim 1, wherein cell traces are produced on intersecting tracks and the mutual interactions of the participating cells and/or cell traces are tested at intersection regions of the intersecting tracks.

42. A device for cell trace based testing of biological cells with a substrate having surface regions, on which the cells adhere more poorly than on surface track regions, in which the cells adhere well and can move adhesively, wherein the surface track regions are arranged for the adhesion of cell traces consisting of material residues separated from the cells.

43. The device according to claim 42, wherein the substrate is structurally and/or chemically modified in the surface regions and/or the surface track regions, in order to suppress and/or encourage the adhesion of cell traces.

44. The device according to claim 42, wherein the substrate is part of a microsystem on which the surface regions and the surface track regions are implemented, with the surface track regions forming at least one straight track.

45. The device according to claim 42, wherein the substrate consists of glass, silicon, or a plastic.

46. The device according to claim 42, wherein multiple surface track regions in the form of a group of parallel tracks or intersecting tracks are formed.

47. The device according to claim 42, wherein the substrate is in two parts, with the surface track regions located on one of the substrate parts.

48. A process for cell trace based cultivation of biological cells, in which the cells are applied to an at least partially structured and/or surface modified substrate and move adhesively over the surface of the substrate while producing cell traces, wherein the cell traces consist of the material residues separated from the cells, and a cultivation of the same or a different type of cells is performed on the cell traces.

49. The process according to claim 48, wherein the biological cells are tissue producing cells and the substrate comprises an implant material.

50. The process of testing of the properties of cells for medical, biochemical, and/or pharmacological purposes, or for biocompatible modification of the surfaces of implant materials, by using material residues, which are formed by biological cells as cell traces on substrates.

51. The process for the manipulation of biological cells, in which the cells are applied to a substrate, which is at least partially structured and/or surface modified, and move adhesively over surface track regions of the substrate while producing cell traces, wherein the cell traces consist of material residues separated from the cells which contain genetic materials of the cells, and the genetic materials are subjected to amplification and the amplified genetic material is subjected to a genetic analysis.